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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,236	11/25/2003	Gregory Allan	00847.000012.1 (CIP)	4355

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EXAMINER	
KRAMSKAYA, MARINA	
ART UNIT	**PAPER NUMBER**
2858	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H-1

Office Action Summary	Application No.	Applicant(s)	
	10/720,236	ALLAN ET AL.	
	Examiner	Art Unit	
	Marina Kramskaya	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) 13-32 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 25 November 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/25/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: a method and apparatus with an electric forcing function;

Species II: a method and an apparatus with a non-electric forcing function.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with J. Berchadsky on 01/10/2005 a provisional election was made without traverse to prosecute the invention of species I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 2, 3, 5, & 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 4, & 5 respectively of U.S. Patent No. 6,686,746. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 1 differs only by the phrase "...by itself, and then..."; therefore, it would be obvious to a person of ordinary skill in the art that the scope of applicants claim 1 is covered by claim 1 of U.S. Patent No. 6,686,746.

5. Claims 8 & 10-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12, 13, & 3 respectively of U.S. Patent No. 6,686,746. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 8 of the application recites all the limitation of claim 12 of the patent except for the "pulse generator" and a "function generator"; however, it would be obvious to a person of ordinary skill in art that the said "pulse waveform" and " forcing waveform" must be generated by some form of a "pulse generator" and a "function generator".

Applicant's Claim 10 is identical to claim 13 of the patent, except for the dependency.

Applicant's Claim 11 is a method claim taught by the apparatus Claim 3 of U.S. Patent No. 6,686,746.

6. Claims 7 & 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 11 of U.S. Patent No. 6,686,746. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations set forth by claim 11 cover the scope of applicant's claims 7 & 12. The patented Claim 11 defines a function generator which sweeps between frequencies $\omega_{peak}-\delta$ and $\omega_{peak}+\delta$, where ω_{peak} is defined to be between $\omega_{peak}-\delta$ and $\omega_{peak}+\delta$. Therefore, it would be obvious to a person of ordinary skill in the art that the frequency ω_{peak} must also lie between the minimum and maximum frequency (ω_{min}, ω_{max}), since a variable frequency function generator cannot be infinite.

7. Claims 4 & 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 & 12 of U.S. Patent No. 6,686,746 in view of Otsuji, US 5,321,632.

U.S. Patent No. 6,686,746 teaches the apparatus and method of monitoring a wire as applied above.

The Claims of U.S. Patent No. 6,686,746 do not teach of generating the forcing waveform at a predetermined frequency in accordance with the wire insulation material and/or a wire conductor material.

Otsuji teaches that different frequencies are associated with wires of different materials (column 1, lines 62-64).

Therefore, it would have been obvious to a person of ordinary skill in the art to generate waveforms of predetermined frequencies in accordance with the material composition of a wire or cable in order to obtain proper results because frequency bands are material dependent as taught by Otsuji (column 1, lines 62-64).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tuttle, US 6,281,685, discloses a method of testing cables and the cable insulation for flaws or defects by inducing a pulse and a waveform in the cable by an electronic device.

Franchville, US 5,994,905, discloses a method and apparatus for testing cables for flaws or defects by frequency domain reflectometry, by applying a sweeping frequency signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Kramskaya whose telephone number is (571)272-2146. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Kramskaya
Examiner
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MK

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